Ogulei, David

From: Ogulei, David
Sent: Monday, March 31, 2014 8:15 AM
To: Paddock, Nancy
Cc: Dennis Warchol
Subject: RE: Title V Request regarding material processing areas and emissions calculations

Hi Nancy,

Good morning! I'm just trying to understand why exactly the surface model is superior to TANKS. TANKS also relies on the compound's vapor pressure to estimate the headspace concentration. Is it possible that TANKS could estimate higher emissions than the surface model in some years? What is the fundamental difference between the two methods that guarantees that the surface model will always yield higher emissions?

From: Paddock, Nancy [mailto:nancy.paddock@veolia.com]
Sent: Monday, March 31, 2014 7:33 AM
To: Ogulei, David
Cc: Dennis Warchol
Subject: Re: Title V Request regarding material processing areas and emissions calculations

Good morning, David!

We used five years worth of TRI data to determine composite VOM and HAP concentration values for use in the evaporative equation.. I did not compare five years worth of data. I am working on the 2013 annual emissions inventory. Since thru put data for 2013 was handy, I used it to compare TANKS and evaporative methods in the small table I sent on March 3, 2014.

I hope this clears things up!

Have a great day!

Nancy Paddock
Environmental Engineering Specialist
Veolia ES Technical Solutions, L.L.C.
7 Mobile Avenue
Sauget, IL 62201
618.271.2804 (x-115)
618.271.2128 (fax)

Please note that my e-mail address has changed:
Nancy.Paddock@Veolia.com

---------- Forwarded message ----------
From: **Ogulei, David** <Ogulei.David@epa.gov>
Date: Fri, Mar 28, 2014 at 4:43 PM
Subject: RE: Title V Request regarding material processing areas and emissions calculations
To: "Paddock, Nancy" <nancy.paddock@veolia.com>
Cc: Dennis Warchol <dennis.warchol@veolia.com>

Hi Nancy,

As stated in your email below, the emissions comparison shown in the table below is for one calendar year. Which year is this? Do you have emissions data for more than one calendar year that show what the difference in emissions between the two methods is? The email says you looked at 5 years of TRI data.

Thanks,

David

From: Paddock, Nancy [mailto:nancy.paddock@veolia.com]
Sent: Monday, March 03, 2014 1:43 PM
To: Ogulei, David
Cc: Dennis Warchol
Subject: Title V Request regarding material processing areas and emissions calculations

Hello David,

Section 2.2(E)(3) of TWI's 2008 Title V permit states that the TANKS program must be used to calculate emissions from MP1, MP2 and LPR.

Last year, a consultant reviewed our emissions inventory process. The Surface Evaporation Model from EPA Guidance EIIP Volume II:Chapter 8 Section 4.1.4. Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities, March 1998. Equation 8.4-18 was used to calculate emissions from MP1, MP2 and LPR. The consultant compiled an average of 5 years of the most recent TRI concentration data to determine the concentration of VOC and HAP in the waste, which was then used in the EPA Surface Evaporation Model referenced above.

TANKS is based on routine displacement of liquids. The surface evaporation model is based on the volatility and ability of a compound to evaporate from the surface of solids and then be picked up by the air in the building and carried to the atmosphere. The evaporation method seems to be more appropriate for MP1, MP2 and LPR; TWI would like to change section 2.2(E)(3) of the upcoming permit (or the equivalent section thereof) to indicate the Surface Evaporation Model will be used to calculate emissions from these sources.

This table compares emissions calculated by both methods for the same calendar year:

	TANKS Model		Evaporative model	
area	TPY	lb	TPY	lb
MP-1	0.06	117	0.21	424
MP-2	0.02	44	0.11	212
LABPACK/REPACK	0.03	68	0.04	85

I hope this makes sense. Please let me know if you have questions.

Thank you,

Nancy

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